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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,485	03/01/2002	Michael A. Pell	SP01-33A	3020

22928 7590 07/14/2003

CORNING INCORPORATED
SP-TI-3-1
CORNING, NY 14831

EXAMINER

NGUYEN, TUAN N

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 07/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/087,485

Applicant(s)

PELL ET AL.

Examiner

Tuan N Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

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DETAILED ACTION

Drawings

1. New corrected drawings are required in this application because it is not acceptable to the draftsman, see the attached Notice of Draftsman drawing review. The corrected drawings are required in reply to the Office action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite, vague, and confusing for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, **for example**.

Claims 1, 15, 30, 45, 46, 47, and 49 recites an excimer laser having pulse repetition rate $\geq 4\text{kHz}$, there is no limit for the repetition rate or beam power. It is not clear, where the magnesium fluoride crystal in relation with other elements as shown in the figures and what or how the wavelength came about; the claims do not recite the structure for the laser system. It is not clear if "a 42mm crystal 120nm transmission of at least 30%" is the same or different from the magnesium fluoride crystal, where is it located in relation with other elements, or not clear 30% of what is transmitted or transmitted to where. Furthermore, the claims are unclear when written in a narrative form, for example, claims 47 and 49 run on disclosing the weight ratios of the materials. The claims have insufficient structure and functional relationship

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to conform an argon/fluoride excimer laser, which render the claims vague and indefinite.

Claims 2-14, 16-29, 31-44, and 48 are rejected base on the same reason.

Claim Rejections - 35 USC § 102

4. The following is a quotation of 35 U.S.C. 102(b) which forms the basis for all obviousness rejections set forth in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 12, 15, 16, 27, 30, 31, 45, 46, 47, and 49 are rejected under 35 U.S.C. 102(e) as being unpatentable over Stamm (US 6560254 B2) and Rebhan (US 2001/0043331).

Stamm (US 6560254 B2) discloses in the ABSTRACT shows in figures 3e, 4a-c,5, and discloses in (Col 2: 40-67; Col 5-6: 15-67; Col 8; Col 9; Col 11: 15-40; Col 19-24) an ArF or KrF excimer laser, producing a 193nm discharge at a pulse rate 4kHz or more, with optical window absorption.

Rebhan '331, shows in figure 1 a ArF or KrF excimer laser, where the chamber (6) has windows made of magnesium fluoride which are transmissive or transparent to UV wavelength, as described in the (ABSTRACT), and paragraphs [0006] [0017] [0024] [0034].

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or non-obviousness.

7. Claims 2-11, 13-14, 17-26, 28-29, 32-44, 48, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stamm '254 and Rebhan '331.

With respect to claims 2,3, 17, 18, 32 and 33, Stamm '254 and Rebhan '331 discloses the above, except the percentage of transmission wavelength. Discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

With respect to claims 4-11, 19-26, 34-40 and 50, Stamm '254 and Rebhan '331 discloses the UV wavelength output < 200nm paragraph [0006][0029]. It is within the general skill of a worker in the art at the time the invention was made to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

With respect to claims 13-14, 28-29 and 44, Stamm '254 and Rebhan '331 it is inherently obvious that the magnesium fluoride crystal has an absorption coefficient. *In re Leshin*, 125 USPQ 416. Discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

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With respect to claims 41, 42, 43, Stamm '254 and Rebhan '331 figure 1 shows the crystal flat planar surface and orientation. It has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Citation of Pertinent References

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. It is cited primarily to show the product of the instant invention.


Myer et al. (US 6567450 or 2002/0044586), Knowles et al. (US 2002/0154671), Partlo et al. (US 2000/0105994), Kleinschmidt et al. (US 6345065), Sparrow (US 20002/0122450) / (US 2002/0122451), Kleinschmidt et al. (US 6421365), etc discloses fluorine narrow band excimer having repetition rate of 4Khz and 193nm wavelength.

Communication Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (703) 605-0756. The examiner can normally be reached on M-F: 7:30 - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.


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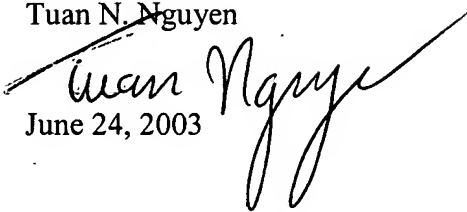
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Tuan N. Nguyen

June 24, 2003

A handwritten signature in black ink, appearing to read "Tuan Nguyen", written over the printed name and date.